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REPORT NO. 4

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PROCUREMENT SECTION  
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## Cotton Fiber and Processing Test Results

CROP of

1972



Agricultural Marketing Service  
U.S. DEPARTMENT OF AGRICULTURE  
Memphis, Tenn. 38117 September 29, 1972

## COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1972

### Discussion of Test Results

Cotton Division laboratories of the Agricultural Marketing Service report that average values for all short staple samples tested from the Southwest to be slightly longer, finer and weaker than through the same date last year. Shirley Analyzer nonlint content is higher. Yarns spun from these samples are stronger, with lower appearance grades and more imperfections than last season. Average spinning potential yarn number is higher.

Southwestern medium staple samples show about the same fiber length and fineness compared with this period last year. Fiber strength at zero gage is weaker. Picker and card waste is higher than last year at this time. Yarns spun from these samples show about the same strength and appearance grades. Yarn imperfections were greater than last year. Average spinning potential yarn number is higher than a year ago.

Only one lot of long staple cotton has been received from the Southeastern production area to date.

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This is the fourth of a series of reports of fiber and processing test results from the 1972 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1971", April 1972. These reports are published by the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, P. O. Box 17723, Memphis, TN 38117.



Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States through September 22, 1972 1/

Staple group Area, and Crop year	Lots tested	Fiber test results							Processing test results													
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality			Spin. Potent.										
		2.5% span	50/2.5 unif.		Pct.	Rdg.			Mpsi	G/tex	Pct.		Pct.	Lbs.	Index	No.						
				Inches			Pct.	Rdg.				Mpsi					G/tex	Pct.	Pct.	Lbs.	Index	No.
Short Staple: Southwest 1971 1972	6	0.95	45	4.8	82	20	2.9	6.0	84	120	23	38										
	8	0.96	44	4.3	83	21	3.0	6.0	94	116	26	48										
Medium Staple: Southwest 1971 1972	23	1.06	45	4.6	86	22	3.0	5.6	103	122	19	59										
	23	1.07	46	4.5	84	22	2.9	6.1	103	121	22	63										
Long Staple: Southeast 1971 1972	4	1.16	43	4.4	82	22	4.0	9.4	107	108	20	66										
	1	1.11	44	4.1	88	25	4.2	*16.1 9.1 *19.1	123 114 131	125 110 100	7 30 17	73										
* Comber waste and combed yarn data																						
Significant dif- ference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3										

1/ Based on a limited number of samples of modal quality  
2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number				Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfct'ns		Spin. Potential	
				2.5% span	Unif		Zero Gage	1/8" Gage			Pct	Pct		Gra	Yel	8s or 74 tx	22sor 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22sor 27 tx		8s or 74 tx
No	Grade	Stple	32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No		
SOUTHWEST AREA																							
SOUTH TEXAS																							
TAFT																							
3	SLM LT SP	42	31	0.95	43	4.6	76	20	7.4	2.8	4	4	4	95 PERCENT		84	7.1	6.1	120	110	49	30	46
CENTRAL TEXAS																							
FORNEY																							
1	MID	31	30	0.95	44	4.4	86	21	6.1	2.3	1	4	4	99 PERCENT		95	6.8	5.9	130	120	29	17	43
ITASCA																							
1	MID LT SP	32	32	0.98	44	3.5	88	21	6.3	3.9	3	5	5	100 PERCENT		99	6.8	6.1	120	120	50	29	49
MCKINNEY																							
1	MID	31	31	0.94	44	3.8	88	20	6.8	2.7	2	5	5	99 PERCENT		95	7.0	6.1	120	120	39	24	44
TEMPLE																							
1	SLM	41	32	0.99	45	4.2	84	22	6.8	2.2	2	4	4	87 PERCENT		103	7.2	6.5	130	120	32	18	51
WACO																							
1	SLM LT SP	42	33	1.03	45	4.6	88	22	6.5	3.2	3	4	4	100 PERCENT *		107	7.5	6.3	120	120	31	18	59

\* 100 percent selected for tests, less than 100 percent in the area.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
Grade		Code	Stple	Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non-Lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potent- ional	
				2.5% span	Unif.		Zero Gage	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx		22s or 27 tx
No				32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	
SOUTHWEST SOUTH TEXAS																							
AUSTWELL																							
3	LM	51	34	1.07	45	5.0	83	21	6.6	3.4	4	3	6.6	90 PERCENT	34	98	5.9	4.3	130	100	20	14	61
CORPUS CHRISTI																							
3	MID LT SP	32	32	1.01	44	5.2	88	21	6.4	2.3	2	4	5.7	70 PERCENT	31	94	5.6	4.2	130	100	14	11	57
CENTRAL TEXAS																							
BATESVILLE																							
3	SLM	41	34	1.07	44	4.0	84	22	7.4	2.0	3	4	5.7	85 PERCENT	37	100	6.3	5.2	120	90	26	22	70
NEEDVILLE																							
2	SLM	41	34	1.10	44	5.1	90	21	6.1	2.6	2	3	5.8	100 PERCENT	29	95	5.4	3.9	130	100	18	14	58

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1972

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number		Digital Fibrograph		Mike	Fiber Strength		Elon- gat'n 1/8"	S.A. Non- Lint	Color Raw Stock		P & C Comber and Waste	Strength		Elongation		Appearance Index		Imperf'ns		Spin. Potent- ional			
		2.5% span	Unif.		Zero	1/8" Gage			Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx				
No	Grade	Stple	32s		In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Lbs	Lbs	Pct	Pct	No	No	No	No		
SOUTHEASTERN AREA																							
ALABAMA																							
ORRVILLE																							
1	LM		51	35	1.11	44	4.1	88	25	6.0	4.2	3	4	100 PERCENT	40	6.1	4.8	100	70	30	29		
														*19.1	48	6.6	5.1	100	90	17	16		
																					73		

\* Comber Waste and Combed Yarn Data